## Subpart C—Certifying Engine Families

## § 1051.201 What are the general requirements for obtaining a certificate of conformity?

- (a) You must send us a separate application for a certificate of conformity for each engine family. A certificate of conformity is valid from the indicated effective date until December 31 of the model year for which it is issued.
- (b) The application must contain all the information required by this part and must not include false or incomplete statements or information (see § 1051.255).
- (c) We may ask you to include less information than we specify in this subpart, as long as you maintain all the information required by §1051.250.
- (d) You must use good engineering judgment for all decisions related to your application (see 40 CFR 1068.5).
- (e) An authorized representative of your company must approve and sign the application.
- (f) See §1051.255 for provisions describing how we will process your application.
- (g) We may require you to deliver your test vehicles or engines to a facility we designate for our testing (see § 1051.235(c)).

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## § 1051.205 What must I include in my application?

This section specifies the information that must be in your application, unless we ask you to include less information under §1051.201(c). We may require you to provide additional information to evaluate your application.

- (a) Describe the engine family's specifications and other basic parameters of the vehicle's design and emission controls. List the fuel type on which your engines are designed to operate (for example, gasoline, liquefied petroleum gas, methanol, or natural gas). List vehicle configurations and model names that are included in the engine family.
- (b) Explain how the emission-control system operates. Describe the evaporative emission controls. Also describe in detail all system components for

controlling exhaust emissions, including all auxiliary-emission control devices (AECDs) and all fuel-system components you will install on any production or test vehicle or engine. Identify the part number of each component you describe. For this paragraph (b), treat as separate AECDs any devices that modulate or activate differently from each other. Include all the following:

- (1) Give a general overview of the engine, the emission-control strategies, and all AECDs.
- (2) Describe each AECD's general purpose and function.
- (3) Identify the parameters that each AECD senses (including measuring, estimating, calculating, or empirically deriving the values). Include vehicle-based parameters and state whether you simulate them during testing with the applicable procedures.
- (4) Describe the purpose for sensing each parameter.
- (5) Identify the location of each sensor the AECD uses.
- (6) Identify the threshold values for the sensed parameters that activate the AECD.
- (7) Describe the parameters that the AECD modulates (controls) in response to any sensed parameters, including the range of modulation for each parameter, the relationship between the sensed parameters and the controlled parameters and how the modulation achieves the AECD's stated purpose. Use graphs and tables, as necessary.
- (8) Describe each AECD's specific calibration details. This may be in the form of data tables, graphical representations, or some other description.
- (9) Describe the hierarchy among the AECDs when multiple AECDs sense or modulate the same parameter. Describe whether the strategies interact in a comparative or additive manner and identify which AECD takes precedence in responding, if applicable.
- (10) Explain the extent to which the AECD is included in the applicable test procedures specified in subpart F of this part.
- (11) Do the following additional things for AECDs designed to protect engines or vehicles:
- (i) Identify the engine and/or vehicle design limits that make protection